

REMARKS/ARGUMENTS

Claims 1-10 are pending herein. Claim 1 has been amended as supported by pages 3-5 and Examples 3 and 5 in the specification, for example. New claim 8 has been added as supported by original claims 1 and 5. Claims 2 and 3 have been amended to depend from claim 8. Claims 4-6 have been amended to address matters of form. New claim 9 has been added as supported by claim 4. New claim 10 has been added as supported by claim 6. Applicants respectfully submit that new matter has been added.

1. Claims 1-5 and 7 were rejected under §102(b) over WO 2004/013385 (WO '385). To the extent that this rejection may be applied against the amended claims, it is respectfully traversed.

Amended claim 1 recites a method of growing a gallium nitride single crystal using a flux comprising at least sodium metal, the method comprising growing the gallium nitride single crystal in an atmosphere gas mixture comprising nitrogen gas under a total pressure of 300 atms to 1200 atms and at a temperature of 850°C to 1200°C. Amended claim 1 further recites that the atmosphere has a nitrogen partial pressure of 120 atms to 600 atms.

WO '385 discloses a method of growing a Group III nitride single crystal.

The method of amended claim 1 is distinguishable from WO '385 because the conditions under which the Group III nitride single crystal is grown in WO '385 are distinctly different from the method of amended claim 1. More specifically, the experimental example of WO '385 discloses a growing temperature of 800-850°C, a total pressure of 15-50 atms and a nitrogen partial pressure of 15-50 atms for growing a Group III nitride single crystal. In contrast, amended claim 1 clearly recites a growing temperature of 850°C to 1200°C, an atmosphere of total pressure of 300 atms to 1200 atms, and a nitrogen partial pressure of 120 atms to 600 atms. Thus, the temperature and pressure conditions specified in amended claim 1 are distinctly different from the conditions disclosed in WO '385.

Based on the above, WO '385 fails to disclose each and every element of amended claim 1. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

2. Claim 6 was rejected under §103(a) over WO '385. This rejection is respectfully traversed, because claim 6 depends directly from amended claim 1, and amended claim 1 is patentable for the reasons explained above.

For at least the foregoing reasons, Applicants respectfully submit that all pending claims herein define patentable subject matter over the art of record.


If the Examiner believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

Respectfully submitted,

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